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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/934,539	08/23/2001	Ryoichi Kawada	011034	7826

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EXAMINER

NATNAEL, PAULOS M

ART UNIT PAPER NUMBER

2614

DATE MAILED: 04/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/934,539

Applicant(s)

KAWADA ET AL.

Examiner

Paulos M. Natnael

Art Unit

2614

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 2 and 4 is/are rejected.
- 7) ☒ Claim(s) 3 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 12-11-01.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Patel, U.S. 6,246,435.

Considering claim 1, Patel discloses an in-service realtime picture quality analysis comprising a reference signal input, parameter extractor 14 which extract a parameter from the input video signal and inserter 16 which inserts the parameter into the now-encoded video signal. The video signal and the parameter are then transported through the transmission channel 20. At the test point the set of parameters is extracted from the transport stream, and the test video signal is decoded from the transport stream. A corresponding set of parameters is generated for the test video signal, and the two sets of parameters are compared by a picture quality analysis algorithm to produce a picture quality rating that represents the degradation of the test video signal. (see abstract and figure)

3. Claims 1,2, and 4 are rejected under 35 U.S.C. 102(e) as being anticipated by Wolf et al, U.S. 6,496,221.

Considering claims 1 and 2, Wolf disclose an apparatus for measuring the quality of a video transmission or storage system when the input and output of the system may be spatially separated, when the apparatus might not have a priori knowledge of the input video, and when there exists an ancillary data channel that can be used by the apparatus. The apparatus makes continuous quality measurements by extracting features from sequences of processed input and output video frames, communicating the extracted features between the input and the output ends using an ancillary data channel 38 (figure 1) of arbitrary and possible variable bandwidth, computing individual video quality parameters (in the video quality processor 36) from the communicated features that are indicative of the various perceptual dimensions of video quality (e.g., spatial, temporal, color), and finally calculating a composite video quality score (41) by combining the individual video quality parameters. (See abstract) The accuracy of the composite video quality score generated by the apparatus depends on the bandwidth of the ancillary data channel used to communicate the extracted features, with higher capacity ancillary data channels producing greater accuracies than lower capacity ancillary data channels.

Regarding claim 4, Wolf teaches that some examples of ancillary data channels that may be used by the apparatus include modem connections over the Public Switched Telephone Network (PSTN), Internet connections, Local Area Network (LAN)

connections, Wide Area Network (WAN) connections, satellite connections, mobile telephone connections, ancillary data channels in modem digital video transmission systems, and data sent over the vertical interval in the analog NTSC video standard. (see col. 1, lines 42-51)

### ***Allowable Subject Matter***

4. Claim 3 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. The following is a statement of reasons for the indication of allowable subject matter: the prior art fails to disclose an apparatus for remote-monitoring picture quality of a picture in transmission comprising: means for handling the characteristic values as time-series data, and frequency-converting the time-series data; means for extracting amplitude components from the data obtained by the frequency conversion; and means for comparing the characteristic values between a plurality of points, based on a comparison of the amplitude components..

### ***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kawada et al., U.S. 6,603,505 disclose a device for objectively evaluating the quality of a digital transmitted picture.


Wolf et al., U.S. 5,596,364 disclose perception-based video quality measurement system.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paulos M. Natnael whose telephone number is (571) 272-7354. The examiner can normally be reached on 10:00am - 6:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller can be reached on (571)272-7353. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PMN  
April 22, 2005

  
**PAULOS M. NATNAEL**  
**PATENT EXAMINER**